98725

Item ID:	647.1402		Accept	***N9000401OO***	Setup	Start	***NS1***
Revision ID:						Stop	***NS2***
Item Name:	Lower Cutter Assembly						

Start Date:	3/21/13	Start Qty:	2.00	***2***	Cust Item ID:
Required Date:	4/04/13	Req'd Qty:	2.00	***2***	Customer:

Reference:

Approvals:	Process Plan: *MLS*	Date: *130321*	Tooling:	Date:	Run	Start	***NR1***
	QC:	Date:	SPC (Y/N):	Date:		Stop	***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
647.1400	N/C								
110	Pick Kit	0.00							
110 Packaging	Memo	0.00	13-05-27						
Packaging									
120		0.00							
120 Small Fab	Memo	0.00							
Small Fab	Assemble as per dwg and apply loctite 598 on all mating surfaces per note 2. A/R LOCTITE 598: *124993*		13-05-27 2						
130	QC5- Inspect part completeness to step on W/O	0.00	DAS 16 *13/03/28*					P/O	
130 QC	Memo	0.00							
Quality Control									

WORK ORDER NON-CONFORMANCE / UPDATE

DQA _[signature]_ Date: 13/04/08

QA Closed: CK Date: 13/4/2

Work Order: **98725**	DISPOSITION	AGAINST DEPARTMENT/PROCESS

Part No. **647.1402**

NCR No. **13-2442**

DISPOSITION
- Rework ☒
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS
- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐ ✓
- Small Fab ☑ ✓
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐ ~~
- Supplier ~~☒~~
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐				Found Durrein Assembly that 647.1501 were chipped/scratches to the Anodize	(DW 16 8-89)	Scuff Assembly and Re prime as per QS2005 (mask off screws + washer nut on lower Assembly)	AJ 13-3-27	(DAS 16 8-89)	(DAS 16 8-89)
Equip/Tooling	☐									
Operator	☐		±120	X2		QS242 13/3/27			DAS 16 8-89 13/03/28	QS2012 13/3/27
Material	☐									
Setup	☐	13/3/27								
Other	☑									
Process	☑				RC. Poor Packaging by Supplier.					
Supplier	~~☒~~									
Training	☐									
Unapproved	☐									

At a Supplier but per Chantle tavaie it is not supplier it is us (process + handling)

FAULT CATEGORY

Don CL - our process and handling

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Item ID:	647.1402	Accept	*N9000401NN*
Revision ID:			
Item Name:	Lower Cutter Assembly		

Setup Start ***NS1***

Stop ***NS2***

Start Date:	3/21/13	Start Qty: 2.00	*2*	Cust Item ID:
Required Date:	4/04/13	Req'd Qty: 2.00	*2*	Customer:

Reference:

Run Start ***NR1***

Stop ***NR2***

Approvals: Process Plan: _____   Date: _____   Tooling: _____   Date: _____

QC: _____   Date: _____   SPC (Y/N): _____   Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 ***140*** Packaging Packaging	Identify as per dwg & Stock Location:_____	0.00							
	Memo ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND REV***	0.00							
150 ***150*** QC Quality Control	QC21- Final Inspection - Work Order Release	0.00							
	Memo	0.00							

PPP91811 1X.
PPP91810 1X.   *2X*

Shipped to Apical *13-03-28*

13-3-28

13/3/28

MLJ 13-03-28

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____	**DISPOSITION**		**AGAINST DEPARTMENT/PROCESS**				
Part No. _____	Rework ☐		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	
	Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐	
	Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	
NCR No. _____	Work Order Update ☐		Large Fab ☐	Composite ☐	Supplier ☐	☐	

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear		**General**				
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	_____	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	_____	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions	_____	

March-21-13 12:40:56 PM

Work Order ID: 98725   ***98725***

Parent Item: 647.1402   ***647 1402***

Parent Item Name: Lower Cutter Assembly

Start Date: 3/21/13   Required Date: 4/04/13
Start Qty: 2.00   Required Qty: 2.00

Comments: IPP REV:A 12.10.04 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
646.9701 ***646 9701*** Cutter Sub Assembly		Manufactured	No		*98844*		Each	0.0000	**	2	2	13-03-26	
NAS1149FN832P ***NAS1149FN832P*** Washer		Purchased	No				Each	8,879.000	**	12			

Location	Loc Qty	Loc Code
ST294	8879	
(115158)	79	
122441	200	
123352	200	
123522	400	
123900	8000	

12   13-03-27

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS27039-08-19 ***MS27039-08-19*** Screw		Purchased	No				Each	2,300.000	**	6			

Location	Loc Qty	Loc Code
ST307	700	
(123352)	600	
123525	100	
st510	1200	
124309	1000	
124859	200	
ST517	400	
124579	400	

6   13-03-27

WORK ORDER NON-CONFORMANCE / UPDATE

NCR: Yes / No

QA Closed: _____ Date: _____

	DISPOSITION	AGAINST DEPARTMENT/PROCESS

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION
- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS
- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear
- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General
- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio

- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions

- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge

- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____
_____
_____

Work Order ID: 98725

Parent Item: 647.1402

Parent Item Name: Lower Cutter Assembly

98725
647 1402

Start Date: 3/21/13   **Required Date:** 4/04/13

Start Qty: 2.00   **Required Qty:** 2.00

MS21042L08   Purchased   No   Each   3.922.000   6

MS21042L08   **

Nut

Location	Loc Qty	Loc Code
ST315	3922	
122141	3	
122452	9	
122814	500	
123900	3410	

6   ~~#~~ 13-03-27

647.1501   Manufactured   No   Each   0.0000   2

647 1501   **

Lower Deflector Assembly

125082

2   ~~#~~ 13-03-27

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____	**DISPOSITION**		**AGAINST DEPARTMENT/PROCESS**				
Part No. _____	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐		
	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐		
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
NCR No. _____	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐			

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric to O/S
☐ Cracks
☐ Crushed/Crimped
☐ Cuffs
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Ripples in Bend
☐ Torque Waves in Extrusion
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damaged
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drill Holes
☐ Drawing
☐ Finish
☐ Folio

☐ Grain
☐ Hardware
☐ Inspection Incomplete
☐ Instructions Incomplete/Unclear
☐ Maintenance
☐ Mislabeled
☐ Misread
☐ Offset
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions

☐ Ovalized
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge

☐ Pressure/Forced
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled

☐ Other
_____
_____
_____

APICAL INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 02962				SHEET 1 OF 1	
DWG NO. 647.1400	REV: N/C	PREPARED BY R. ROSANO	DATE: 09/01/10	EFFECT ON DWG ☐ INC. ☒ UNINC.	
DWG TITLE: CUTTER ASSY					
APPROVED BY:	ENGR	MFG	QC	EFF: CURRENT ORDER	

TRANSACTION CODES (TC):
A—ADD C—CREATE
R—REVISE D—DELETE

REASON: REPLACED CUTTER BODY IN 647.1401

UNCONTROLLED COPY
WORK ORDER
98725_MLS
(3-03-21)

F/N	TC	PART NUMBER	1402 QTY	1401	DESCRIPTION	MATERIAL	SPECIFICATION
8	A	648.3601		1	CUTTER SUB ASSY		
1	R	646.9701	1		CUTTER SUB ASSY		

DOCUMENTS EFFECTED: ☐ MDL ☐ INSTALL INSTRUC ☐ ICA ☒ BOM

CHANGE CATEGORY ☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED ☐ YES ☒ NO

98720

NOTES:

1. IDENTIFY IAW MPP-120

2. APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 1, 6, & 7 UPON ASSEMBLY

⑦

6 PL ②
3 PL ③
3 PL ④

①

647.1402

⑥

6 PL ②
3 PL ③
3 PL ④

①

647.1401
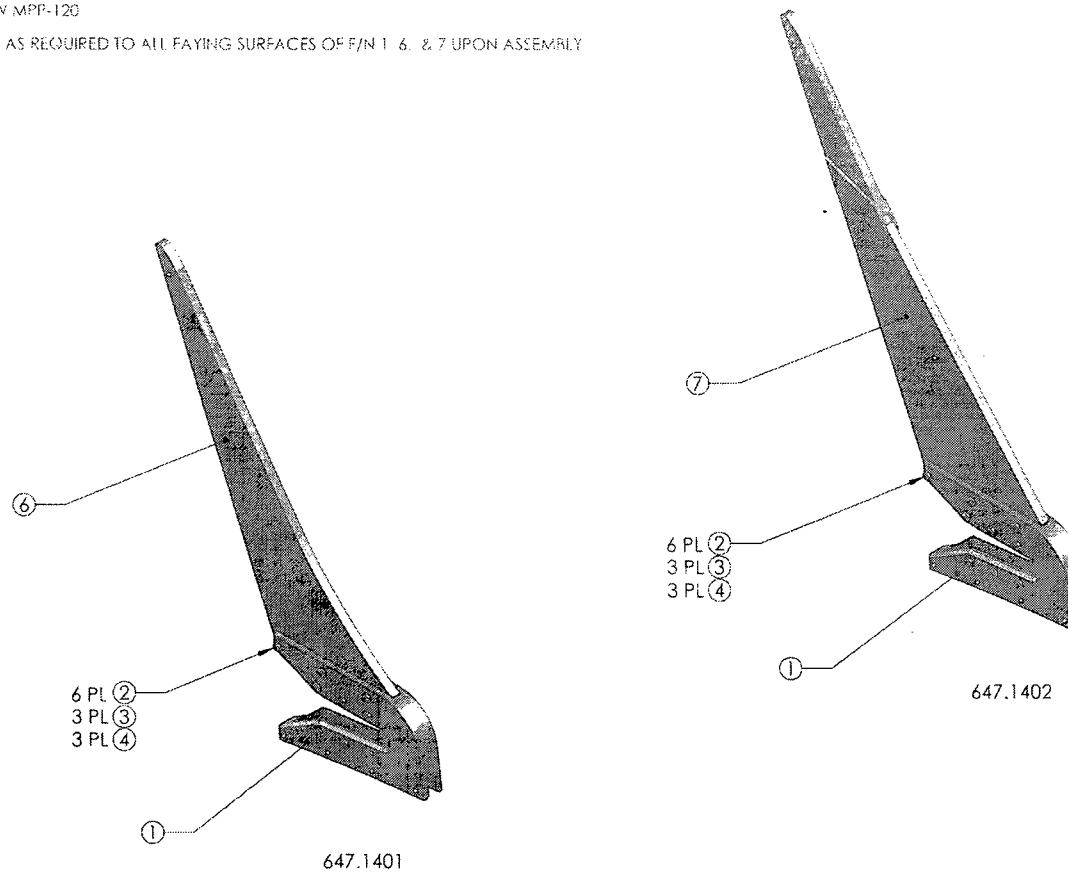
UNINCORPORATED ECN(s)

02962

1		7	647.1501	LOWER DEFLECTOR ASSY		
	1	6	647.1510	UPPER DEFLECTOR		
A/R	A/R	5	601.2045	RTV, LOCTITE 598		
3	3	4	601.1541	NUT	MS21042L08	
3	3	3	601.2765	SCREW	MS27039-0819	
6	6	2	601.2764	WASHER	NAS1149FN832P	
1	1	1	646.9701	CUTTER SUB ASSY		
✕			647.1402	CUTTER ASSY (LOWER)		
	✕		647.1401	CUTTER ASSY (UPPER)		
.1402	.1401	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
QTY				PARTS LIST		

NEXT ASSY (S)
647.1300

ORIGINAL DATE   06-15-09
DRAWN BY   CHECKED
J. CARDENER   P. BRAVO
DRAWING APPROVAL
P. BRAVO
DESIGN
CONTRACT NO

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE
2 PLACE DECIMALS ±.010
3 PLACE DECIMALS ±.005
ANGLES ± .5°

CUTTER ASSY

SIZE	CAGE CODE	DWG NO	REV
B	07HZ6	647.1400	N/C
SCALE NONE		SHEET 1 OF 1	